S/054/62/000/002/001/012
B163/B138

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AUTHOR: Shcherbin, Yu. P.

TITLE: Calculation of the energy of the ground state of a system of three nucleons

PERIODICAL: Leningrad. Universitet. Vestnik. Seriya fiziki i khimii, no. 2, 1962, 5-16

TEXT: A theoretical investigation was made of the wave functions describing the ground state of a system of three nucleons (H^3 or He^3). According to Derrick's and Blatt's classification there exist two S- and D state wave functions which are symmetrical with respect to a permutation of particle distances. They give the main contribution to the binding energy of H^3 and He^3. The two-nucleon interaction potential operator contains a central, a tensor, and a spin-orbital component. If the matrix elements of the operators of kinetic and potential energy are calculated with those parts of the wave function, which depend on the spin-isospin and angular variables, a system of 10 partial differential equations

Card 1/2

Card 2

SHCHERBIN, Yu.P.

Calculation of the three-particle forces in the three-nucleon
problem. Vest. LGU 17 no.4:20-27 '62.   (MIRA 15:3)
(Quantum field theory)(Calculus of variations)

SHCHERBIN, Yu.P.

Calculation of the energy of the ground state of a three-nucleon
system. Vest.LGU 17 no.10:5-16 '62.   (MIRA 15:5)
        (Nucleons)   (Quantum theory)

SOKOLOVSKII, Iu. I.

Calculating the energy of the ground state of a three-nucleon system. Part 2. Fiz. CO no.2269-40 '62. (MIRA 18:1)

SHCHERBIN, Yu.P.

Study of the ground state of the three-nucleon system by a one-dimensional equation method. Vest. LGU 20 no.4:142-145 '65.

(MIRA 18:4)

SHCH_____, _. _.

Cancerous and vascular diseases of deciduous trees   Moskva, Goslesbumizdat, 1953
89 p.

1.   Trees - Diseases and pests.

CHEVERTIN-PARFENENKO, A. I.

Cheverkin-Parfenenko, A. I. -- 'Endothelial Cancer and Gall Disease of
the Edible Chestnut." "In Higher Education USSR. Leningrad Order
of Lenin Forestry Engineering Academy imeni S. ". Kirov. Lenin-
grad, 1956 (Dissertation for the Degree of Candidate in Biological
Science)

So: Knizhnaya Letopis', No 12, 1956

USSR/General and Special Zoology. Insects   F

Abs Jour : Ref Zhur - Biol., No 6, 1958, No 25826

Author   : Shcherbin-Parfenenko A.L.
Inst   : Not Given
Title   : The Argonaut Horntail (Sirex argonautorum Gussek). (Rogokhvost-
           ergonevt (Sirex argonautorum Gussek)).

Orig Pub : Nauchn.-tekhn. sb. tr. po lesn. kh-vu Sever. Kavkaza, vyp. 2,
           1956, 154-156

Abstract : The argonaut horntail was of great economic value in the
           Bol'sho-Labin summer home of the Psobzy forest kolkhoz. It
           inhabited healthy firs, the passages for emergence being only
           there where as a result of trimming or slips the sapwood was
           exposed. The females only deposited their eggs on bare sap-
           wood.

Card   : 1/1

SHCHERBIN-PARFENENKO, Anton Lavrent'yevich; ZHURAVLEV, I.I., red.;
    ULYAKHINA, I.P., red.izd-va; POPOVA, V.V., tekhn. red.

[Bacterial diseases of forest trees] Bakterial'nye zabole-
vaniia lesnykh porod. Moskva, Goslesbumizdat, 1963. 146 p.
                                    (MIRA 17:2)

SHCHERBINA, A.

Strengthening the links with farms. Sov.shakht. 10 no.5:4
My '61.   (MIRA 14:9)

1. Predsedatel' komiteta profsoyuza shakhty no.1 im. Chelyuskintsev,
Donbass.
          (Donets Basin--Coal miners) (Farmers)

BELYAVSKIY, A.; SHCHERBINA, A. (Kasli, Chelyabinskoy obl.)

Device for locating short-circuited turns in coils. Radio no.8:
19 Ag '60. (MIRA 13:9)
(Electric coils)

SHCHERBINA, A.A.

Parks in the western provinces of the Ukrainian S.S.R. Biul.Glav.
bot. sada no.18:32-41 '54.   (MIRA 8:3)

1. Botanicheskiy sad pri L'vovskom gosudarstvennom universitete
im. Iv.Franko.
        (Ukraine—Parks)

SHCHERBINA, A.A.

Results of the acclimatization of ornamental trees and shrubs
in the city of Lvov and its vicinity. Nauk.zap.L'viv.un.26:
105-112 '54.   (MLRA 9:10)

(Lvov--Plants, Ornamental)

NAZAREVSKIY, S.I.; MAKAROV, S.N.; PILIPENKO, P.S GERASIMOV, M.V.; IL'INSKAYA,
    M.L.; VEKSLER, A.I.,[deceased], VASIL'YEV, I.M.; IL'INA, N.V.; SOKOLOV,
    S.Ya.; LOZINA-LOZINSKAYA, A.S.; SAAKOV, S.G.; ZALESSKIY, D.M.; AVRORIN,
    N.A.; IVANOV, M.I.; PRIKLADOV, N.V.; SOBOLEVSKAYA, K.A.; SALAMATOV,
    M.N.; MALINOVSKIY, P.I.; LUCHNIK, A.I.; KRAVCHENKO, O.A.; VEKHOV, N.K.;
    GROZDOV, B.V.; MASHKIN, S.; BOSSE, G.G.; PALIN, P.S.,(g.Shuya, Ivanov-
    skoy oblasti); MATUKHIN; ZATVARNITSKIY, G.F.; GRACHEV, N.G.; CHERKASOV,
    M.I.; KIRKOPULO, Ye.N.; LEVITSKAYA,A.M.; GRISHKO, N.N.; LIKHVAR', D.F.
    VIL'CHINSKIY, N.M.; LYPA, A.L.; OREKHOV, M.V.; SHCHERBINA, A.A.;(Card 3)
    TSYGANKOVA, V.Z.; BARANOVSKIY, A.L.; GEORGIYEVSKIY, S.D.; STEPUNIN, G.A.;
    OZOLIN, E.P.; LUKAYTENE, M.K.; KOS, Yu.I.; VAIL'YEV, A.V.; RUKHADZE,
    P.Ye.; VASHADZE, V.N.; SHANIDZE, V.M.; MANDZHAVIDZE, D.V.; KORKESHKO,
    A.L.; KOLESNIKOV, A.I.,(g. Sochi); SERGEYEV, L.I.; VOLOSHIN, M.P.;
    RYBIN, V.A.; IVANOVA, B.I.; RYABOVA, T.I.; GAREYEV, E.Z. ;RUSANOV, F.N.;
    BOCHANTSEVA, Z.P.; BLINOVSKIY, K.V.; KLYSHEV, L.K.; MUSHEGYAN, A.M.;
    LEONOV, L.M.

    Talks given by participants in the meeting. Biul.Glav.bot.sada no.15:
    85-182 '53.   (MLRA 9:1)

    1. Glavnyy botanicheskiy sad Akademii nauk SSSR (for Makarov,Pilipenko,
    Gerasimov, Il'inskaya, Veksler); 2. Akademiya komunal'nogo khozyay-
    stva imeni K.D. Pamfilova for Vasil'yev); 3. Vsesoyuznaya sel'skokho-
    zyaystvennaya vystavka (for Il'ina); 4. Botanicheskiy sad Botaniche-
    skogo instituta imeni V.L.Komarova Akademii nauk SSSR (for Sokolov,
    Lozina-Lozinskaya, Saakov); 5. Botanicheskiy sad Leningradskogo
                                    (continued on next card)

NAZAREVSKIY, S.L.---(continued) Card 2.

gosudarstvennogo ordena Lenina universiteta (for Zalsaskiy); 6. Pol-
yarno-Al'piyskiy botanicheskiy sad Kol'skogo filiala imeni S.M. Kirova
Akademii nauk SSSR (for Avrorin); 7. Botanicheskiy sak pri Tomskom
gosudarstvennom universiteta (for Ivanov); 8. Botanicheskiy sad pri
Tomskom gosudarstvennom universiteta imeni V.V. Kuybysheva (for Prik-
ladov); 9. TSentral'nyy Sibirskiy botanicheskiy sad Zapadno-Sibirsko-
go filiala Akademii nauk SSSR (for Salamatov, Sobolevskaya); 10. Bo-
tanicheskiy sad Irkutsko gosudarstvennogo universiteta imeni A.A.
Zhdanova (for Malinovskiy); 11. Altayskaya plodovo-yagodnaya opyt-
naya stantsiya (for Luchnik); 12. Bashkirskiy botanicheskiy sad (for
Kravchenko); 13. Lesostepnaya selektsionnaya opytnaya stantsiya deko-
rativnykh kul'tur tresta Goszelenkhoz Ministerstva kommunal'nogo kho-
zyaystva RSFSR (for Vekhov); 14. Bryanskiy lesokhozyaystvennyy insti-
tut (for Grozdov); 15. Botanicheskiy sad pri Voronezhskom gosudar-
stvennom universitete (for Mashkin); 16. Orekhovo-Zuyevskiy pedago-
gicheskiy institut (for Bosse); 17. Botanicheskiy sad pri Rostovskom
gosudarstvennom universitete imeni V.M. Molotova (for Matukhin); 18.
Botanicheskiy sad Kuybyshevskogo gorodckogo otdela narodnogo obrazo-
vaniya (for Zatvarnitskiy); 19. Zoobotanicheskiy sad pri Kazanskom
universitete (for Grachev); 20. Gosudarstvennyy respublikanskiy
proektnyy institut "Giprokommunstroy" (for Cherkasov); 21. Botani-
cheskiy sad Odasskogo gosudarstvennogo universiteta imeni I.I. Mechni-
kova (for Kirkopulo); 22. Botanicheskiy sad pri Dnepropetrovskom
gosudarstvennom universitete (for Levitskaya); 23. Botanicheskiy sad

NAZAREVSKIY, S.L.----(continued) Card 3.

Akademii nauk USSR (for Grishko, Likhvar', Vil'chinskiy); 24.
Kiyevskiy sel'skokhozyaystvennyy institut (for Lypa); 25. Botani-
cheskiy sad Chernovitskogo gosudarstvennogo universiteta (for Orekhov);
26. Botanicheskiy sad pri L'vovskom gosudarstvennom universitete
imeni Iv. Franko (for Shcherbina); 27. Botanicheskiy sad Khar'kov-
skogo gosudarstvennogo universiteta imeni A.M. Gor'kogo (for TSygan-
kova); 28. Botanicheskiy sad Zhitomirskogo sel'skokhozyaystvennogo
instituta (for Baranovskiy); 29. Botanicheskiy sad Akademii nauk
Belorusskoy SSR (for Georgiyevskiy); 30. Institut biologii Akademii
nauk Belorusskoy SSR (for Stepunin); 31. Botanicheskiy sad Akademii
Litovskoy SSR (for Lukaytene); 32. Botanicheskiy sad Latviyskogo go-
sudarstvennogo universiteta (for Ozolin); 33. Kabardinskiy krayeved-
cheskiy botanicheskiy sad (for Kos); 34. Sukhumskiy botanicheskiy
sad Akademii nauk Gruzinskoy SSR (for Vasil'yev, Rukhadze); 35. Ba-
tumskiy botanicheskiy sad Akademii nauk Gruzinskoy SSR (for Shanidze);
36. Tbilisskiy botanicheskiy sad Akademii nauk Gruzinskoy SSR (for
Mandzhavidze); 37. Sochinskiy park Dendrariy (for Korkeshko); 38.
Gosudarstvennyy Nikitskiy botanicheskiy sad imeni V.M. Molotova (for
Sergeyev, Voloshin); 39. Krymskiy filial Akademii nauk SSSR (for
Rybin); 40. Botanicheskiy sad Moldavskogo filiala Akademii nauk SSSR
(for Ivanova); 41. Botanicheskiy sad Botanicheskogo instituta Aka-
demii nauk Tadzhikskoy SSR (for Ryabova); 42. Botanicheskiy sad Kir-
gizskogo filiala Akademii nauk SSSR (for Gareyev); 43. Botanicheskiy

NAZAREVSKIY, S.L.----(continued) Card 4.

sad Akademii nauk Usbekskoy SSR (for Rusanov, Bochantseva); 44.
Botanicheskiy sad Akademii nauk Turkmenskoy SSR (for Blinovskiy);
45. Respublikanskiy sad Akademii nauk Kazakhskoy SSR (for Kiyshev,
Mushegyan).

(Botanical gardens)

SHCHERBINA, A.A.

The Mezhenets Park. Biul. Glav. bot. sada no.28:11-15 '57.
(MIRA 11:1)

1. L'vovskiy gosudarstvennyy universitet im. Ivana Franko.
(Nizhankovichi District--Arboretums)

SHCHERBINA, A.A.

Introduction of trees and shrubs in Lvov. Biul.Glav.bot.
sada no.32:31-36 '58.   (MIRA 12:5)

1, L'vovskiy gosudarstvennyy universitet im. Iv. Franko.
                (Lvov--Arboretums)

SHCHERBINA, A. D.

Ob odnom metode summirovaniya ryadov, sopryazhennykh s ryadami Fur'ye. Dnepropetrovsk, zap. un-ta, 25 (1941), 45-61.

SO: Mathematics in the USSR, 1917-1947
        edited by Kurosh, A.G.,
        Markushevich, A.I.,
        Rashevskiy, P.K.
      Moscow-Leningrad, 1948

ŠHCHERBINA, A D

Ščerbina, A. D. On a summation method of series conjugate to Fourier series. Mat. Sbornik N.S. 27(69), 157-170 (1950). (Russian)

Let $S_n(x) = S_n(x, f)$ be the nth partial sum of the series conjugate to the Fourier series of $f(x)$, and let

$$\sigma(n, p) = \sigma_n(n, p, f, x) = (S_{n-p} + \cdots + S_{n-1} + S_n)/(p+1)$$

be the delayed $(C, 1)$ means of $\{S_n\}$. (1) A necessary and sufficient condition that $\sigma(n, p)$ be uniformly equiconvergent, for every continuous f, with

$$\tilde{f}_n(x) = -\pi^{-1} \int_{1/n}^{\pi} [f(x+t) - f(x-t)] \tfrac{1}{2} \cot \tfrac{1}{2} t \, dt,$$

as $n \to \infty$, is that $\liminf_{n \to \infty} p/n > 0$. (2) If the latter condition is satisfied, then $\sigma(n, p) \to \tilde{f}(x)$ ($= \lim_{n \to \infty} \tilde{f}_n(x)$) almost everywhere, for every integrable f. (3) A corresponding result is obtained for the series conjugate to the Fourier-Stieltjes series.   A. Zygmund (Chicago, Ill.).

Source: Mathematical Reviews,   Vol 12 No. 5

SHELUDKA, A. F.

"The Ecology of Iva Xanthifolia Nutt. from Observation in the Vicinity of Voronezh," Botan. Zhur., 34, No. 1, 1949. Voronezh Zoovet Inst, Chair Bot. -c1949-. Mbr., Chair Botany, Voronezh Zooveterinary Inst., -c1949-.

MUCHNIK, S.R., starshiy nauchnyy sotrudnik; SKORODINSKAYA, V.V., starshiy
nauchnyy sotrudnik; SHCHERBINA, A.F., mladshiy nauchnyy sotrudnik

Metabolism in patients with marked myopia and deratoconus. Oft.
zhur. 13 no.5:261-266 '58   (MIRA 11:10)

1. Iz laboratorii patologicheskoy fiziologii Ukrainskogo nauchno-
issledovatel'skogo eksperimental'nogo instituta glaznych bolezney
i tkanevoy terapii im. akademika V.P. Filatova (direktor - prof.
N.A. Puchkovskaya).
            (METABOLISM)
            (EYE--DISEASES DEFECTS)

SHCHERBINA, A.F.

A new species of Diplotaxis DC in the Don basin. Bot.mat.Corb. 22:
150-154 '63.

(MIRA 17:2)

8(0)   SOV/112-59-5-9186

AUTHOR: Shcherbina, A. G.

TITLE: Regenerative Circuit of a Semiconductor Refrigerator

ABSTRACT: An experimental 100-liter refrigerator was built by remodeling a "Dnepr" icebox. The first stage comprises a bank of 200 thermocouples, the second stage three similar banks. Tests were conducted with and without a fan blowing on the hot radiators. The test results proved to be unsatisfactory: with a 90-kg weight, vs. 50 kg of the "ZIS-Moskva" refrigerator, over 50% of the electric power was spent for overcoming a parasitic temperature drop that reached 20-30°C. The design of a regenerative semiconductor refrigerator free from the above disadvantages and having a considerably higher refrigeration coefficient is presented. The regenerative circuit exhibited, in actual tests, twice as high an economy as that of the conventional semiconductor refrigerator.

L.I.A.

Card 1/1

KOLENKO, Ye.A.; SHCHERBINA, A.G.; YUR'YEV, V.G.

Method of eliminating heat from semiconductor cooling devices.
Zhur. tekh. fiz. 28 no.11:2543-2545 N '58.   (MIRA 12:1)
        (Semiconductors) (Cooling)

KOLENKO, Ye.A.; SHCHERBINA, A.G.

Microtome table with thermoelectric cooling. Med.prom. 13
no.3:47-48 Mr '59. (MIRA 12:5)

1. Institut poluprovodnikov AN SSSR.
(MICROTOME)

ISAAKYAN, L.A.; KOLENKO, Ye.A.; SHCHERBINA, A.G.

Electrical apparatus for thermal stimulation of the skin. Fiziol.
zhur. 45 no.11:1388-1391 N '59. (MIRA 13:5)

1. From the U.S.S.R. Academy of Sciences Institute of Semi-Con-
ductors and the department of general physiology, Institute of
Experimental Medicine, Leningrad.
(TEMPERATURE)

S/120/61/000/004/032/034
E194/E355

AUTHORS.   Voronin, A.N., Sher, E.M. and Shcherbina, A.G.

TITLE.   A precision semiconductor zero-thermostat

PERIODICAL: Pribory i tekhnika eksperimenta, no. 4, 1961,
             pp. 181 - 182

TEXT.   Maintaining the cold junctions of thermocouples
in a vacuum flask with melting ice is an inconvenient and
rather inaccurate arrangement. A cold-junction thermostat
has been constructed, based on semiconductor cooling thermo-
elements which accurately maintains a temperature of 0 $^{\circ}$C.
The cold junction of the thermocouple is in a sealed copper
vessel, completely filled with water and also containing a
pressure bellows inside which are electrical contacts that
operate when the bellows are compressed. The base of the
copper vessel is cooled by being in contact with the cold
junctions of a battery of 8 semiconductor thermo-elements
connected in series and passing a current of 16 A. The hot
junction is cooled by tap water and the water unions also
serve as electrical terminals. As the water in the copper
 Card 1/2

A precision S/120/61/000/004/032/034
                                                E194/E355

vessel is cooled it freezes round the walls, expanding so that
the pressure-sensitive bellows is compressed to operate a
relay that disconnects supply from the thermal battery. As the
ice melts the pressure is relieved and supply to the thermo-
battery is restored. Thus, the cold junction is always in
water that is in equilibrium with ice.
Foam plastic is used for thermal insulation of the equipment.
The thermostat maintains a temperature of $0\ ^{\circ}C$ to within
$\pm\ 0.001\ ^{\circ}C$. The thermostat is 100 mm in diameter, 120 mm high
and weighs 1.1 kg. It is supplied by a rectifier unit using
two germanium diodes type ВГ-10 (VG-10) and can operate with
cooling-water temperature up to $30\ ^{\circ}C$ and room temperatures
up to $40\ ^{\circ}C$. By increasing the size, water cooling could be
replaced by natural cooling. There are 2 figures.

ASSOCIATION: Institut poluprovodnikov AN SSSR (Institute of
             Semiconductors of the AS USSR)

SUBMITTED: December 15, 1960

Card 2/2

L 00877-67   EWT(1)/EWT(m)/EWP(j)/T   IJP(c)   AT/RM/WW

ACC NR: AP6023654   (A)   SOURCE CODE: UR/0066/66/000/004/0017/0020

56

AUTHOR: Shcherbina, A. G.

B

ORG: SKB Institute for Semiconductors, Academy of Science SSSR (SKB Instituta poluprovodnikov Akademii nauk SSSR)

TITLE: Corrugated heat conductors for thermoelectric batteries

SOURCE: Kholodil'naya tekhnika, no. 4, 1966, 17-20

TOPIC TAGS: thermoelectric converter, thermoelectric cooling, thermoelectric equipment, thermoelectric generator

ABSTRACT: A method for calculating heat conduction through corrugated heat conductors is presented. The calculation is based on the following model (see Figs. 1 and 2). Applying the heat conduction equation to the heat flow through the metal and electrical insulating layers arranged as shown in Fig. 2, the author derives an expression for the maximum heat conductivity of the heat conductor

$$\lambda_{(max)} = \frac{\lambda_{M}\delta_{M}}{1,3(2\delta_{M} + \delta_{u})}.$$

where λ_M and δ_M is the heat conductivity and thickness of the metallic layer respectively, and $\delta\mu$ is the thickness of the insulating layer. The derived expression was tested on a corrugated copper-epoxy-impregnated paper. It was found

Card 1/3   15   UDC: 621.565.83
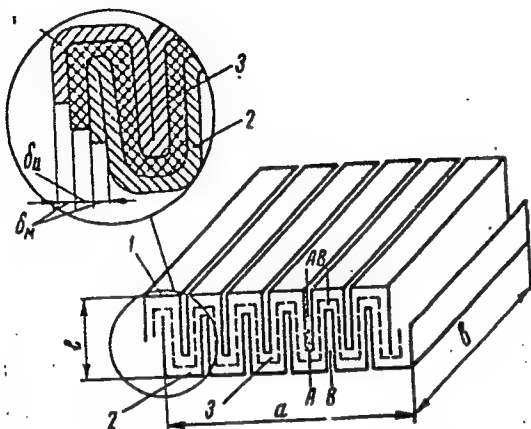
L 00877-67

ACC NR: AP6023654

Fig. 1.   Corrugated heat conductors:
1, 2 - metallic layers; 3 - electrical
insulating layer.

Fig. 2.   Model for a corrugated heat
conductor (for meanings of symbols,
see Fig. 1).

that for $\delta_M = 0.1$ mm, $\lambda_M = 320$ kcal/m·hr·degree, $\lambda_\mu = 0.15$ kcal/m·hr·degree,
and $\delta_\mu = 0.055$ mm, the maximum heat conduction was 97 kcal/m·hr·degree, i.e.,
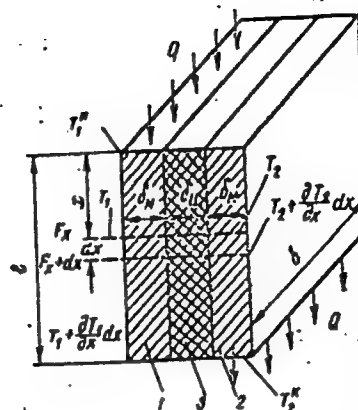
Card 2/3

L 00877-67

ACC NR: AP6023654

equal to that of aluminum. The derived expression was also tested by calculating the temperature difference across the air cooler KR-1. The calculated temperature difference (0.99C) was found to be in good agreement with the experimentally determined values of 0.85--1.25C. An installation based on a sewing machine mechanism is capable of producing 800--1000 corrugated heat conductor units per hour. Orig. art. has: 2 graphs and 26 equations.

SUB CODE: 09/ SUBM DATE: none

hs

Card 3/3

SHCHERBINA, A. I., Cand. Agri. Sci.   (diss) "Effect of Various
                            of Poultry
Light Systems on Maintenance /   for Exchanges of Substances

(N, Ca and P) and Development of their Offspring," Khar'kov, 1961,

16 pp. (Khar'kov Zoo-vet. Inst.) 150 copies (KL Supp 12-61, 28.).

SHCHERBINA, A.I., inzh.

Steel plate for the lining of blast furnace bells. Met. i
gornorud. prom. no.1:69-70 Ja-F '62.   (MIRA 16:6)

(Blast furnaces—Design and construction)
(Plates, Iron and steel)

SILAKOV, N.K., slesar' (Odessa); SHCHERBINA, A.I., slesar' (Odessa)

Test stand for electric welding generators. Suggested by N.K.
Silakov, A.I.Shcherbina. Stroi. truboprov. 8 no.5:35 My '63.
(MIRA 16:5)

1. Stroitel'no-montazhnoye upravleniye No.10 tresta Ukrgazneftestroy.
(Electric generators)

SHCHERBINA, A.I., inzh. ; PROSTOV, N.A., inzh.

Working 338m of a running tunnel in one month in the construction of the Moscow subway. Shakht. stroi. 7 no.11:24-26 N'63
(MIRA 17:7)

1. Stroitel'no-montazhnoye upravleniye No.7 Gosudarstvennogo ordena Lenina i ordena Trudovogo Krasnogo Znameni upravleniye stroitel'stva Moskovskogo metropolitena.

"Infections and Pest on Libemases Pond Fish." Thesis for Degree of Dr. Veterinary Sci., Sep 12 1 v 12, All-Union Inst. of Experimental Veterinary Medicine.

Summary 71, 18 Dec 52, Dissertations Presented For Degrees in Science and Engineering Defended in 1952. From Vechernyaya Moskva, Jan-Dec. 1952.

IFORSHINA, A. Y.

SHCHERBINA, A. K.   Diseases of dom /pond/ fish. Moscow. Agricultural
Publishing House, 1952. 2073 pages with illustrations. Price 4 rubles, 70
kopeks, bound. 10,000 copies.

Sc: Veterinariya; 3C; (3); March 1953; Uncl.
TABCON

1. PCHELKINA, A.... Prof.

2. USSR (600)

4. Fish Culture

7. Applying the principles of grassland agriculture to pond fish culture, Ryb.khoz. 29 no. 3, 1953.

9. Monthly List of Russian Accessions, Library of Congress, __APRIL__ 1953, Uncl.

SHCHERBINA, A.K., doktor veterinarnykh nauk, professor.

General regularities in the development and dying out of conta-
gious diseases of fish. Veterinariia 30 no.11:22-25 N '53.

(MLRA 6:11)

SHCHERBINA, A.K., Professor   (Kiev Vet Inst)

"The Basic Principles on Prophylaxis and Eradication of Infectious Diseases in Calves"

Report given at 13th Inter-VUZ (Higher Educational Insts.) Scientific-Industrial Conference, held February 1956 at Kiev Vet Inst.

SHCHERBINA, A.K., professor.

Control of fish diseases in the Ukr... Veterinariia 34 no.9:57-59
S '57.   (MIRA 10:9)

(Ukraine--Fishes--Diseases and pests)

MARKEVICH, A.P.; SHCHERBINA, A.K.

State and problems of the study of fish diseases in inland waters
of the Ukrainian S.S.R. Trudy sov.Ikht.kom. no.9:149-152 '59.
(MIRA 13:5)

1. Institut zoologii AN USSR i Nauchno-issledovatel'skiy institut
prudovogo i ozerno-rechnogo rybnogo khozyaystva USSR.
(Ukraine--Fishes--Diseases and pests)

OCHEREGINA, A. M.

"The Basic Problem of Veterinary Science in the Development of Radical
Measures to Fight Fish Diseases in the Ukrainian Lakes."

Tenth Conference on Parasitological Problems and Diseases with Natural
Reservoirs, 22-29 October 1959, Vol. II, Publishing House of Academy of
Sciences, USSR, Moscow-Leningrad, 1959.

Institute of Fish Breeding and Department of Epizootology of the Veterinary
Faculty of the Ukrainian Academy of Agricultural Science. Kiev.

SHCHERBINA, A.K., prof., doktor veterin.nauk; ZABORSKIY, N.I., red.;
     PECHENKIN, I.V., tekhn.red.

[Diseases of pond fishes] Bolezni prudovykh ryb. Moskva,
Izd-vo M-va sel'.khoz.SSSR, 1960. 39 p.

(MIRA 14:1)

(Fishes--Diseases and pests)

SHCHERBINA, Aleksey Konstantinovich, prof., doktor veterin.nauk;
MEL'NIKOV, G.B., prof., doktor biolog.nauk, red.; DONETS,
N.Ye., red.; ZHELIKHOVSKIY, V.I., red.; KVITKA, S.P.,
tekhn.red.

[Diseases of fishes and their control] Bolezni ryb i mery
bor'by s nimi. Kiev, Izd-vo Ukr.Akad.sel'khoz.nauk, 1960.
333 p.   (MIRA 14:1)
          (Fishes--Diseases and pests)

SUKHOVERKHOV, F.M., kand.biolog.nauk; DENISOV, L.I., inzh.; MATSUTSIN,
N.G., inzh.; PISARENKOVA, A.S., rybovod; SHCHERBINA, A.K., doktor
veterinarnykh nauk; GRIGOR'YEV, Ye.P., red.; DEYEVA, V.M., tekhn.red.

[Fish culturist's handbook] Spravochnik rybovoda. Moskva, Gos.
izd-vo sel'khoz.lit-ry, 1960. 350 p.   (MIRA 13:9)
                    (Fish culture)

"Antibiotics against experimental pasteurellosis in poultry."

Veterinariya, Vol. 37, No. 2, 1960, p. 40

(SHCHERBINA, A. K., Prof., NASTENKO, K. A., and DMITRIYEV, Dotsents, STEPENKO, M. F., Ordinator - Ukrainian Acad. Agricultural Sci.

SHCHERBINA, A. K., GORBAN', N. I., NASTENKO, K. A., and DMITRIYEV, E. I.
(Doctor of Veterinary Sciences and Candidates of Veterinary Sciences)

"The testing of biomycin in pasteurellosis of ducklings"

AFANAS'EV, Aleksey Konstantinovich; SUKHOVERKHOV, F.M.

[Fish diseases and the fundamentals of fish culture]
Bolezni ryb i osnovy rybovodstva. Moskva, Kolos, 1961.
294 p.   (MIRA 18:9)

9. Monthly List of Russian Accessions, Library of Congress, ~~December 1952 1953~~, Uncl.

SHcHERBINA. A.R.

USSR/ Agriculture

Card   : 1/1

Authors   : Shcherbina, A. R.

Title   : Along the steppes of the Ukraine

Periodical   : Nauka i Zhizn'. 5, 36 – 38, May 1954

Abstract   : Working and social activities of kolkhoz (cooperative) farmers of the Ukraine steppes and their contributions to the fulfillment of Soviet 5-year plans. Illustrations.

 Institution : ....

 Submitted   : ....

SHCHERBINA, A. R.

High yields of corn on large areas   2., dop. izd. Moskva, Gos. izd-vo selkhoz lit-ry 1955. 85 p. (Peredovoi opyt v sel'skom khoziaistve)

1. Maize - Russia.

MARCHENKO, A.I., kand.med.nauk (Kiyev); KARPENKO, N.G. (Kiyev);
    SHCHERBINA, A.S. (Kiyev)

Frequency of paradentosis among the rural population of Fastov
and Brovary Districts of Kiyev Province. Probl.stom. 4:201-204
'58.   (MIRA 13:6)
              (KIEV PROVINCE--GUMS--DISEASES)

PROKOPENKO, A.G., inzh.; GORESHNIK, A.D., inzh; PALIYCHUK, A.S., inzh.; RUVIMSKIY, I.M., inzh.; SHALAGIN, A.D., inzh.; SHCHERBINA, A.V., inzh.; YAKOVLEV, V.N., inzh.

Starting up turbine-boiler units after a holiday shutdown of 24 hours. Teploenergetika 7 no.3:60-72 Mr '60. (MIRA 13:5)

1. Yuzhnoye otdeleniye Gosudarstvennogo tresta po organizatsii i ratsionalizatsii elektrostantsiy, Yuzhno-Ural'skaye gosudarstvennaya rayonnaya elektricheskaya stantsiya, Odesskaya teploelektrotsentral' i Stupinskaya teploelektrotsentral'.
        (Boilers)   (Steam turbines)

PROKOPENKO, A.G., inzh.; PALIYCHUK, A.S., inzh.; SHCHERBINA, A.V., inzh.;
        SHALAGIN, A.D., inzh.

        Starting features of VP turbines. Elek. sta. 32 no.7:11-17 Jl
        '61.   (MIRA 14:10)
                            (Steam turbines)

PROKOPENKO, A.G., inzh.; SHVETS, V.N., inzh.; SHCHERBINA, A.V., inzh.

Morning start-up of a boiler-turbine unit. Elek. sta. 32 no.5:2-4
My '61.   (MIRA 14:5)
(Boilers)   (Steam turbines)

GONCHAROV, V.I., Cand.; MIKHAYLOV, A.D., Engr.; SHCHYERBINA, P.I., Cand.

Part of a IAZ-1 type boiler combined together with a steam parameter book. Rab. 1945

(Gas IV:11)

... ..., ...
...., ..., ..., ...

.... printed armature winding. ..... ; elektrotekh.
......., ...,   (KIRA 16;0)

VORONOV, V.G., inzh.; SHCHERBINA, B.G., inzh.

Automatic cable placing device for three-phase cable winding machines.
Energ. i elektrotekh. prom. no.2:56-57 Ap-Je '64.   (MIRA 17:10)

SHCHERBINA, D. (g. Novomoskovsk, Dnepropetrovskoy oblasti)

Worker inventors.   Prom.koop.   no.4:10   Ap '57.   (MIRA 10:7)

1. Tekhnoruk arteli invalidov "Yedineniye."
                (Efficiency, Industrial)

SHCHERBINA, D.M.

Change the dates for taking samples of winter crops and perennial
grasses. Zemledelie 8 no.1:92 Ja '60.   (MIRA 13:4)

1. Glavnyy agronom plemsvinosovkhoza "Chutovo", Poltavskoy
oblasti.
        (Grain) (Grasses) (Plants--Frost resistance)

SHCHERBINA, D.M.

Rectifier feed of hot-cathode tubes. Izm. tekh. no.8:32-34
Ag '63.
(MIRA 16:10)

ACCESSION NR: AP4014638   S/0115/64/000/001/0027/0029

AUTHOR: Shcherbina, D. M.

TITLE: Kerr cell used for comparing luminous fluxes

SOURCE: Izmeritel'naya tekhnika, no. 1, 1964, 27-29

TOPIC TAGS: pyrometer, optical pyrometer, comparator, Kerr cell,
Kerr cell comparator, luminous flux, luminous flux comparator

ABSTRACT: The use of a Kerr cell for optical-pyrometer measurements is
considered. Two luminous fluxes polarized in perpendicular planes are directed
into a Kerr cell. If the fluxes are unequal, the difference will be modulated by
the cell, passed through an analyzer, and measured by a phototube. This
formula describes the above phenomenon:

$$\Delta\Phi_- = \frac{1-\cos\varphi}{4}\,\Delta\Phi\cos(4\alpha-2\gamma),$$

Card 1/2

ACCESSION NR: AP4014638

where $\Delta\Phi_\sim$ is the alternating luminous flux reaching the phototube; φ is the phase difference between the ordinary and extraordinary rays that passed the Kerr cell; $\Delta\Phi$ is the difference between the two fluxes being compared; α is the angle between the principal plane of the Kerr cell and a polarizer; γ is the angle between the principal planes of the analyzer and the same polarizer. Two pairs of plates at right angles with applied quadrature-shifted voltages are suggested for the rotating-field Kerr cell. Sources of various errors are examined. Orig. art. has: 3 figures and 2 formulas.

ASSOCIATION: none

SUBMITTED: 00

DATE ACQ: 14Feb64

ENCL: 00

SUB CODE: IE, PH

NO REF SOV: 002

OTHER: 000

Card 2/2

ACCESSION NR: AP4024195   S/0294/64/000/001/0098/0101

AUTHOR: Shcherbina, D. M.

TITLE: Temperature measurements in solar furnaces

SOURCE: Teplofizika vy*sokikh temperatur, no. 1, 1964, 98-101

TOPIC TAGS: solar furnace, temperature measurement, solar furnace temperature, blackness coefficient, brightness temperature, reflection coefficient, magnesium oxide brightness

ABSTRACT: A new method has been developed at the KhGIMIP to determine the temperature of a solar furnace, so as to eliminate the methodological difficulties caused by the reflected sunlight. The method is based on determining the blackness coefficient of the measured sample and the brightness temperature, due to the reflected solar energy, of a comparison object made of magnesium oxide. The brightness temperature of the investigated sample is also measured

Card 1/3

ACCESSION NR: AP4024195

and consists of the brightness due to its thermal radiation and a
brightness of the reflected sunlight, so that one can write

$$e^{\frac{c_2}{\lambda T_1}} = \zeta e^{\frac{c_2}{\lambda T}} + \frac{\rho}{\rho_0} \cdot e^{\frac{c_2}{\lambda T_0}}. \qquad (3)$$

where T_1 is the brightness temperature of the sample, T_0 the bright-
ness temperature of the magnesium oxide, T the unknown temperature,
ζ and ζ_0 are the respective reflection coefficients of the specimen
and the magnesium oxide, and λ is the blackness coefficient. The
procedure for determining all the quantities except T is described.
The measurement error does not exceed 1%. Orig. art. has: 5 formu-
las and 2 tables.

ASSOCIATION: Khar'kovskiy gosudarstvenny*y institut mer i izmeri-
tel'ny*kh priborov (Khar'kov State Institute for Measures and Mea-

Card   2/3

ACCESSION NR: AP4024195

suring Instruments)

SUBMITTED: 21Oct63   DATE ACQ: 16Apr64   ENCL: 00

SUB CODE: PH   NR REF SOV: 000   OTHER: 004

Card   3/3

L 45626-65   EWT(1)/EEC(b)-2/T   Pq-4/Pi-4   IJP(c)

ACCESSION NR: AP5006479   S/0294/65/003/001/0164/0165

AUTHOR: Shcherbina, D. M.

TITLE: Concerning one possibility of measuring emissivity η_m

SOURCE: Teplofizika vysokikh temperatur, v. 3, no. 1, 1965, 164-165

TOPIC TAGS: emissivity, reflection coefficient, brightness temperature, blackness coefficient, optical measurement

ABSTRACT: The method proposed is applicable in the case when the emissivity of the body has a wavelength dependence with minima or maxima. An external source such as a gas-discharge lamp eliminates the heated surface of a circle, the temperature of which is maintained constant (monitored, for example, with a brightness pyrometer). The reflection coefficient in some direction is recorded as a function of the wavelength, and the reflected light can be separated from the intrinsic radiation by modulating the incident light. A procedure for determining the blackness coefficient and the brightness temperature is presented for the case when the curve has a maximum, by making use of the fact that the blackness coefficients

Card 1/2

L 45626-65

ACCESSION NR: AP5006479

corresponding to points of equal reflection are the same. An alternate variant
of the method is proposed. The method can be used to measure the blackness coeffi-
cients of materials with low thermal conductivity, since simpler methods are
available for those with high thermal conductivity. The success of the method
depends on how clearly pronounced the extremum of the reflection-coefficient curve
is at constant temperature and on the optical range in which this extremum is
situated. Orig. art. has: 2 figures and 4 formulas.

ASSOCIATION: None

SUBMITTED: 25Jun64   ENCL: 00   SUB CODE: OP

NR REF SOV: 000   OTHER: 003

Card 2/2

L 41704-66　RM

ACC NR: AP6019577

SOURCE CODE: UR/0115/66/000/004/0044/0047

AUTHOR: Shcherbina, D. M.

ORG: none

TITLE: Apparatus for the determination of spectral blackness coefficients

SOURCE: Izmeritel'naya tekhnika, no. 4, 1966, 44-47

TOPIC TAGS: temperature measurement, radiation measurement, black body radiation, light reflection coefficient, solar furnace

ABSTRACT: The author describes apparatus developed for the measurement of the normal spectral reflection coefficients of nonmetallic materials at high temperatures, from which the temperatures themselves can be determined. The apparatus consists of a solar furnace to heat the measured sample (to 2500C), and a measuring optical system consisting of a reflector, irradiator, and electronic circuit. Solar-radiation pyrometers are also included. The test body is heated by focused solar radiation, and its surface temperature is determined by reflecting from it a narrow beam of light from a hydrogen-filled pulsed flash lamp. The reflected light signal is detected, amplified, and recorded. The article describes the measurement method, the apparatus, and the equatorial system used to allow the apparatus to follow the sun's motion relative to the earth. Various precautions necessary to avoid the effects of vibration, background, and other disturbing factors are also described. According to preliminary tests, the apparatus can measure blackness coefficients at temperatures

UDC: 681.2: 535.231.5

Card 1/2

ACC NR: AP6019577

20-2500C with accuracy within 6%. Orig. art. has: 4 figures.

SUB CODE: 11, 14/ SUBM DATE: 00/ ORIG REF: 006/ OTH REF: 001

Card 2/2

DEL'TSOV, B.M., inzh.; SHCHERBINA, E.G., inzh.

Trends in the creation of means for the mechanization of stoping
operations in steeply dipping seams. Ugol' Ukr. 6 no.5:32-33
My '62.
(MIRA 15:11)

1. Gorlovskiy mashinostroitel'nyy zavod im. S.M.Kirova (for Del'tsov).
2. Toretskiy mashinostroitel'nyy zavod (for Shcherbina).
(Donets Basin--Coal mining machinery)

PANASENKO, S.I., inzh.; SHCHERBINA, E.G., inzh.; AKSENOV, V.V., kand.tekhn.
      nauk; D'YAKONOV, D.N., inzh.; MIRONOV, N.T., inzh.

      Testing experimental sections of the support of the AKD unit.
      Ugol'. prom. no.6:54-57 N-D '62.   (MIRA 16:2)

      1. Toretskiy mashinostroitel'nyy zavod (for Panasenko, Shcherbina).
      2. Institut gornogo dela im. Skochinskogo (for Aksenov, D'yakonov,
      Mironov).
                              (Mine timbering—Testing)

SHCHERBINA, F. [Shcherbyna, F.]

Let us build farm buildings for the collective farms under our
patronage. Sil'. bud. 13 no.11:8-9 N '63.   (MIRA 17:1)

1. Sekretar' partiynoy organizatsii Kiyevskogo domostroitel'nogo
kombinata No.1.

L 1575-66   EWT(m)/EPF(c)/EPF(n)-2/EWA(j)/T/EWA(h)/EWA(c)/EWA(1)/ RPL WW/GG/RM
ACCESSION NR: AP5022600

UR/0190/65/007/009/1549/1553
66.095.26+678.744+678.745

AUTHORS: Shcherbina, F. F.; Fedorova, I. P.

TITLE: Radiation copolymerization of allylamine with acrylic and methacrylic acids

SOURCE: Vysokomolekulyarnyye soyedineniya, v. 7, no. 9, 1965, 1549-1553

TOPIC TAGS: copolymerization, acrylic acid, methacrylic acid, allylamine, radiation polymerization

ABSTRACT: Radiation copolymerization of allylamine with acrylic and methacrylic acids in aqueous solution and in solid phase has been accomplished by using Co^{60} at 1300 and 56 rad/sec. The reaction proceeded at room temperature to the extent of 72%. A detailed study of the reaction was performed since the polymeric products of this reaction have amphoteric character and so are of considerable theoretical and practical interest. The bifunctional character of the products was confirmed by the dependence of the viscosity of the aqueous polymer solution upon the pH of the medium (see Fig. 1 on the Enclosure), by the potentiometric titration curves, and by chemical analysis. These latter data were confirmed by the results of calculations based on the curve in Fig. 1, which indicates that

Card 1/4
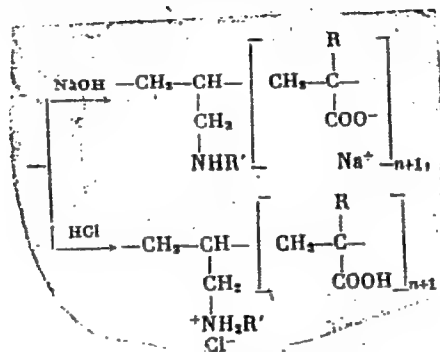
L 1575-66

ACCESSION NR: AP5022600

the ratio of the basic to the acidic component is 1:4 in the case of acrylic acid, and 1:4.7 in the case of methacrylic acid. It also appears that the content of the polymer is independent of the radiation doses and the composition of the monomeric mixture. An excess of allylamine, however, lowers the yield of the copolymer. The dotted portion of the curve indicates the region of pH within which the copolymers precipitate. Similar results were obtained when N-ethyl alanine was used as a basic component. However, a solution of N,N-diethylalanine copolymer, used by O. O. Houben-Weul (Methoden der organischen Chemie, Georg Thieme Verlag, Stuttgart, 4 Aufl., 1961, S.1133) in his viscosimetric studies, was stable at all pH values. This is explained by the formation in the vicinity of the isoelectric point by the primary and secondary amino groups (but not by the tertiary) of an isoluble lactam which is readily cleaved by either an acid or a base

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L 1575-66

ACCESSION NR: AP5022600

$$\xrightarrow{NaOH} -CH_2-CH- \left[CH_2-\overset{R}{\underset{COO^-}{C}}- \right]_{n+1} NHR' \quad Na^+$$

$$\xrightarrow{HCl} -CH_2-CH- \left[CH_2-\overset{R}{\underset{COOH}{C}}- \right]_{n+1}$$
$$CH_2$$
$$^+NH_2R'$$
$$Cl^-$$
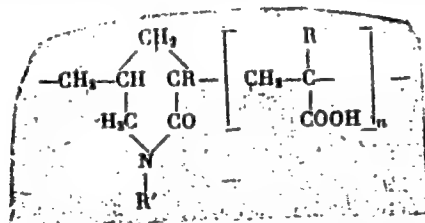
where n = 3, if R = H; n = 4, if R = CH_3 and R' = H or C_2H_5. Orig. art. has:
4 tables, 3 figures, and 1 formula.

ASSOCIATION: Kiyevskiy gosudarstvennyy universitet im. T. G. Shevchenko (Kiev
State University)

SUBMITTED: 15Oct64   ENCL: 01   SUB CODE: OC

NO REF SOV: 002   OTHER: 008
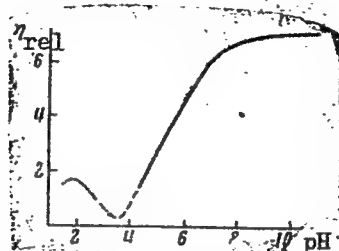
Card 3/4

L 1575-66

ENCLOSURE: 01

Fig. 1. Viscosity of the solution of the allylamine-acrylic acid copolymer as a function of the pH of the medium.

Card 4/4

FAL'KOVICH, Yu.Ye.; Prinimali uchastiye: STANCHU, I., student;
    SHCHERBINA, G., studentka

Determining copper content of wine and brandy by means of ion
exchange resins. Trudy KIPP no.22:375-378 '61.   (MIRA 16:4)
            (Wine and winemaking—Analysis)
                (Ion exchange resins)

SHCHERBINA, G.V.

Otogenous intracranial complications as revealed by materials from
the Otolaryngological Department of the Volhyn' Province Hospital.
Zhur. ush., nos. i gorl. bol. 21 no.2:28-31 Mr-Ap '61.
(MIRA 14:6)

1. Otolaringologicheskaya otdeleniye Volynskoy oblastnoy bol'nitsy.
     (EAR—DISEASES)   (BRAIN—DISEASES)

SHCHERBINA, G.V.

Content of 17-ketosteroids in the urine of scleroma patients
Zhur. ush. nos. i gorl. bol. 23 no.6:51-55 N-D '63.

1. Iz kafedry bolezney ukha, gorla i nosa (ispolnyayushchiy
obyazannosti zaveduyushchego - doktor med. nauk R.A. Bariliyak)
L'vovskogo meditsinskogo instituta.

16.3400

28663

S/020/61/140/002/008/023
C111/C444

AUTHOR: Shcherbina, G. V.

TITLE: On the boundary value problem for Blasius' equation

PERIODICAL: Akademiya nauk SSSR. Doklady, v. 140, no. 2, 1961,
318-321

TEXT: The author proves the existence of the solution of the boundary
value problem

$$y^* + 2yy' = 0 \qquad\qquad (1)$$

$y(\pm 0) = 0$, $y'(+0)=y'(-0)$, $y''(+0)=cy''(-0)$, $\lim\limits_{x \to +\infty} y'(x)=a$

$\lim\limits_{x \to -\infty} y'(x) = b$ $(c > 0,\ a \geqslant 0,\ b \geqslant 0,\ a \neq b)$.

The proof is based on the following theorems:

Lemma 1: For an arbitrary solution of (1) there is either
$y''(x) \neq 0$ $(-\infty < x < \infty)$ or $y'''(x) = 0$.

Theorem 1: If $y'(x) > 0$ $(-\infty < x < \infty)$, then there exist finite limits
$\lim\limits_{x \to +\infty} y'(x)$, $\lim\limits_{x \to -\infty} y'(x)$.

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S/020/61/140/002/008/023

On the boundary value problem . . .   C111/C444

Theorem 2: Let $y(x)$ be the solution of (1) and $\lim_{x \to +\infty} y'(x) = a > 0$,

$\lim_{x \to -\infty} y'(x) = b > 0$, $y(0) = c_o$, $y'(0) = c_1$, $y''(0) = c_o$.

Then there exists for every $\varepsilon > 0$ a $\delta > 0$ such that out of $|y_o - c_o| < \delta$, $|y_o' - c_1| < \delta$, $|y_o'' - c_2| < \delta$ it follows:

$$\max_{-\infty < x < \infty} |y'(x) - y'(x, y_o, y_o', y_o'')| < \varepsilon .$$

Theorem 3: Let $y'(0) = \alpha$, $y''(0) = \beta$. For every $a \geq 0$ and every $\alpha \gg 0$ there exists a $\beta(\alpha)$ such that $y(x)$ satisfies the equation (1) and $\lim_{x \to +\infty} y'(x) = a$.

Besides: If $a - \alpha \geq 0$ then $\beta(\alpha)\alpha^{-1}$ is a continous monotonely decreasing function of α; if $a - \alpha < 0$ and $\bar{\beta}(\alpha)$ is the strict upper bound of those $y''(0)$, for which $\lim_{x \to +\infty} y'(x) = a$, then $\bar{\beta}(\alpha)\alpha^{-1}$ is

a non-increasing function of α.

Card 2/3

28663

On the boundary value problem . . .   S/020/61/140/002/008/023
                                       C111/C444

The author thanks Professor A. D. Myshkis.

There are three non-Soviet-bloc references.

ASSOCIATION: Fiziko-Tekhnicheskiy institut nizkikh temperatur
              Akademii nauk SSSR (Physicotechnical Institute of Lower
              Temperatures of the Academiy of Sciences USSR)

PRESENTED: November 28, 1960, by J. G. Petrovskiy, Academician

SUBMITTED: November 24, 1960

Card 3/3

S/044/63/000/002/016/050
A060/A126

AUTHOR: Shcherbina, G.V.

TITLE: On a boundary problem for quasilinear ordinary differential equations

PERIODICAL: Referativnyy zhurnal, Matematika, no. 2, 1963, 41, abstract 2B175 (Uch. zap. Khar'kovsk. un-t, 1961, 120, Zap. Mekhan.-matem. fak. i Khar'kovsk. matem. o-va, v. 28, 97 - 102)

TEXT: The author considers the boundary problem

$$y'' + \varphi(x, y) y' + \psi(y) = 0,\qquad (1)$$

$$y(0) = 0, \quad \lim_{x \to \infty} y(x) = 1 \quad (0 \leqslant x < \infty). \qquad (1')$$

With respect to the functions $\varphi(x, y)$ and $\psi(y)$ it is assumed that: 1) $\varphi(x, y)$ and $\psi(y)$ are non-negative nonincreasing functions of u, and at every point of the interval $0 < y < 1$ at least one of them is strictly monotonic and $\psi(1) = 0$; 2) $\varphi(x, y)$, $\varphi_x(x, y)$ and $\psi(y)$ are continuous for $x > 0$, $y > 0$, $\varphi_y(x, y)$ and $\psi'(y)$ are continuous for $x > 0$, $0 < y < 1$; 3)

Card 1/2

On a boundary problem for quasilinear ....

S/044/63/000/002/016/050
A060/A126

$$\int_0^1 \psi(y)\, dy < \infty, \quad \int_0^1 \varphi(x,\, ax)\, dx \text{ is finite for any } a > 0; \quad 4) \text{ for those}$$

$y < 1$ for which $\psi(y) = 0$ the following holds $\lim\limits_{x \to \infty} \dfrac{\varphi(x,\, y)}{x^\alpha} = c(y) > 0,$

where $\alpha > -1$ is some constant. Under these conditions there exists a unique solution of the boundary problem (1), (1').

· Yu.A. Klokov

[Abstracter's note: Complete translation]

Card 2/2

SHCHERBINA, G.V.

Laminar flow of a viscous fluid in a channel with porous walls.
Pribl.metod.resh.diff.urav. no.2:162-175 '64.

(MIRA 18:4)

L 63570-65   EWT(d)   Pg-4   IJP(c)

TITLE: Asymptotic behavior of solutions vanishing at infinity of a class of second order differential equations

ABSTRACT: As a generalization of a specific problem previously treated, the authors investigate the asymptotic behavior as $x \to \infty$ of solutions $y(x)$ of

$$y'' + \varphi(x, y)y' - \psi(x, y)y = 0, \quad (1)$$

having the property

$$0 < y(x) < h \quad (x_0 < x < \infty), \quad y(x) \underset{x \to \infty}{\to} 0, \quad (2)$$

Here φ and γ are continuous in some strip $\overline{\Pi}$: $x_0 \leq x < \infty$, $0 \leq y \leq h$, where x_0 and h are positive. The authors justify linearization using new techniques (standard methods being inapplicable) with an arbitrary choice of exponents in their decompositions. They prove the following Theorem: Let
Card 1/3

L 63570-65

ACCESSION NR: AP5014863

$$\varphi(x, 0) = \sum_{i=0}^{n} a_i x^{\rho_i} + o(x^{\rho_n}), \qquad \psi(x, 0) = \sum_{i=0}^{n} b_i x^{\sigma + \rho_i} + o(x^{\sigma + \rho_n}) \qquad (3)$$

$(x \to \infty)$, where $a_0 + b_0 > 0$. Further, suppose that for certain constants $N > -1$, $A > 0$ in $\overline{\Pi}$ the following estimates hold:

$$\varphi(x, y) > A x^N, \qquad \psi(x, y) > 0 \qquad\qquad (4)$$

or

$$\varphi(x, y) = o(x^N) \quad (x \to \infty), \qquad \psi(x, y) > A x^{2N}. \qquad (5)$$

Finally, suppose, for certain constants $B \geq 0$, $s > 0$, $\alpha < N + 1$ in $\overline{\Pi}$ there is the inequality

$$|\varphi(x, y) - \varphi(x, 0)| + |\psi(x, y) - \psi(x, 0)| < B y^s \exp x^\alpha. \qquad (6)$$

Then

$$\frac{y'(x)}{y(x)} = \sum_{i=0}^{n} a_i x^{\rho_i} + o(x^{\rho_n}), \qquad (7)$$

(where the coefficients α_i are determined from recursion relations which are made explicit in the proof). An example is given. "V. V. Nemytskiy brought certain references to our attention; he also made other valuable comments, for which we are

Card 2/3

L 63570-65

ACCESSION NR: AP5014863   0

pleased to express our gratitude." Orig. art. has: 28 formulas.

ASSOCIATION: none

SUBMITTED: 20Feb62   ENCL: 00   SUB CODE: MA

NO REF SOV: 006   OTHER: 002

Card 3/3

NEFEDOV, A.A., kandidat tekhnicheskikh nauk; SHCHERBINA, G.Z., inzhener.

Increasing the productivity of thin sheet mills. Metallurg 2 no.6:
23-25 Je '57.   (MIRA 10:6)

1. Ural'skiy institut chernykh metallov (for Nefedov). 2. TSentral'naya zavodskaya laboratoriya Enakiyevskogo metallurgicheskogo zavoda (for Shcherbina).

(Rolling (Metalwork))

130-9-10/21

AUTHORS: Babiy, A.S. and Shcherbina, G.Z.

TITLE: Combating Surface Defect in Sheets (Bor'ba s poverkhnostnymi
          defektami na listakh)

PERIODICAL: Metallurg, 1957, Nr 9, pp.21-23 (USSR)

ABSTRACT: An account is given of an investigation carried out at
           the Yenakiyevo works to find the connection between defects
           in ingots (250-650 kg) and in sheets (4, 5, 6 and 8 mm thick,
           1100-1400 mm wide) rolled from them in a three-high mill.
           Ingots were selected with particular types of defects and the
           corresponding sheets in which defects appeared were examined.
           Results obtained are tabulated, showing the proportions of
           the various types of ingot defects (scabs, pits, slag inclu-
           sions and sand holes) which appeared in the sheets in the
           same or in a different form. Of large scales 20% appeared in
           a different form, and the greater part appeared unchanged;
           most small scabs did not appear in the sheets. Most of the
           pits were 5-8 mm deep and these did not appear on sheets,
           though some pits were produced during rolling. Sand holes
           appeared in the sheets far more frequently than they were
           visible in ingots; the metal near sand holes of steel melting
           origin had a microstructure rich in non-metallic inclusions,

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AUTHORS: Tovpenets, Ye.S., Candidate of Technical Sciences,
             Goncharenko, N.I., Candidate of Technical Sciences,
             Labiy, A.S., Engineer, and Shcherbina, G.Z., Engineer

TITLE: Improvement of Mechanical Properties of Reinforcing
             Bars by Thermal Treatment (Povysheniye mekhanicheskikh
             svoystv armaturnoy stali posredstvom termicheskoy
             obrabotki)

SOV/133-59-4-22/32

ABSTRACT: The possible degree of improvement of mechanical
             properties of St5 steel by thermal treatment and optimum
             conditions of such treatment were studied. Specimens
             from 5 heats were taken for the investigation (chemical
             composition - table 1). Parallel specimens were
             prepared from the usual rods and from rods which passed
             thermal treatment according to one of the following
             seven modifications. $^\circ$C (in brackets - duration of
             cooling in water - seconds).

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Improvement of Mechanical Properties of Reinforcing Bars by
Thermal Treatment

I	II	III	IV	V	VI	VII
800	800	850	850	900	900	900
(3)	(9)	(5)	(9)	(3)	(9)	(12)

After hardening the rods were annealed at 500, 600,
650, 670 and 690°C. In addition a part of the rods was
hardened in water after electric heating (by resistance)
to 820 to 850°C and from the temperature of the end of
rolling with subsequent annealing at 650°C (the duration
of cooling of rods 10 to 12 and 28 mm in diameter on
hardening in water was 6 and 20 seconds respectively).
The duration of electric heating of rods 12 mm in
diameter did not exceed 2-3 minutes at a current of
1200 to 2100 a and 12 v. Tests for strength were done at
room temperature and tests for bending and impact
strength also at sub zero temperatures. The macro-
structure was studied on impact strength specimens in
the place of the break. The experimental results are
given in tables and figures. It was found that
Card 2/4   mechanical properties of reinforcing profiles from low

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Improvement of Mechanical Properties of Reinforcing Bars by
Thermal Treatment

carbon steel St 5 can be substantially improved by
hardening with high temperature annealing (not only
the tensile and yield strength are improved but also
the impact strength particularly at low testing
temperatures (up to -60°C see table 3). The influence
of welding on the mechanical properties of thermally
treated metal is non-uniform and depends on the method
of welding (electric arc welding completely removes the
improvement of mechanical properties obtained by the
heat treatment while butt welding only partly removes
the beneficial influence of heat treatment). The
technico-economic effect of thermal treatment (table 4)
with hardening from the temperature at the end of rolling
is somewhat lower than on hardening from special heating
Card 3/4   to 850°C (particularly in respect of impact strength).

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Improvement of Mechanical Properties of Reinforcing Bars by
Thermal Treatment

There are 5 figures, 4 tables and 6 Soviet references.

ASSOCIATION: Donetskiy Industrial'nyy Institut i Yenakiyevskiy
Metallurgicheskiy Zavod (Donetsk Industrial Institute
and the Yenakiyevo Metallurgical Works)

Card 4/4

SVECHNIKOV, Gennadiy Aleksandrovich; SHCHERBINA, I., red.; RYZHOVA, M.,
    mladshiy red.; NOGINA, N., tekhn. red.

    [Causality as a category in physics] Kategoriia prichinnosti v fizike.
Moskva, Izd-vo sotsial'no-ekon. lit-ry, 1961. 244 p.   (MIRA 14:11)
       (Causation)   (Physics—Philosophy)

SHCHERBINA, I.

       Our plans and tasks. Pozh. delo 5 no.6:25-26 Je '59.
                                 (MIRA 12:8)

       1.Starshiy inspektor Upravleniya uchebnykh zavedeniy Ministerstva
vnutrennikh del SSSR.
           (Fire prevention--Study and teaching)